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ABSTRACT

Surveys were mailed to all nurse practitioners (NPs), physician assistants (PAs) and certified nurse midwives (CNMs) registered in California, asking questions about education, labor force participation, specialty, and location and type of practice site, as well as the demographic characteristics of these professionals and their patients. Response rates for each of the three professions (66 percent of 7,341 NPs, 57 percent of 2,938 PAs, and 70 percent of 859 CNMs) were sufficient to provide a broad overview of these professions at the state level but insufficient for analysis of supply in small geographic areas within the state. Major findings of the survey include the following: (1) the numbers of these professionals have grown dramatically over the past decade, with half of each profession completing education in the 1990s; (2) most of these medical care providers are practicing in their fields, and most spend most of their working hours providing direct patient care; (3) the majority of NPs, PAs, and CNMs provide primary care services in a wide variety of settings; (4) these providers care for large numbers of underserved persons; (5) most NPs, PAs, and CNMs are in their 40s and 50s, and most were educated in California; and (6) minority groups are underrepresented in all three professions. (Survey forms are included in this report.) (KC)

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Nurse Practitioners, Physician Assistants and Certified Nurse Midwives in California

A Report by the
Office of Statewide Health Planning and Development
and the
Center for California Health Workforce Studies
at the
University of California, San Francisco

Gray Davis
Governor
State of California

Grantland Johnson
Secretary
Health and Human Services Agency

David Werdegar, MD, MPH
Director
Office of Statewide Health Planning and Development

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Office of Statewide Health Planning and Development

Priscilla Gonzalez-Leiva, RN
Deputy Director, Primary Care Resources Division

Ed Mendoza, MPH
Assistant Director, Special Initiatives and Program Evaluation

Megan Florida
Project Coordinator

UCSF Center for California Workforce Studies

Kevin Grumbach, MD
Center Director

Janet Coffman, MPP
Center Manager

Elizabeth Mertz, MPA
Research Associate

Emily Rosenoff
Research Assistant

Advisors

Linda Ennis, MS, CNM
Director, UCSF/SFGH CNM Educational Program
University of California, San Francisco

Virginia Fowkes, FNP, MHS
Director, Primary Care Associate Program
Stanford University

Catherine Gilliss, DNSc, RN, FAAN
Dean, School of Nursing
Yale University

Sally Rankin, RN, PhD, FNP
Associate Professor and Director, Family Nurse Practitioner Program
University of California, San Francisco

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This work was supported by the US Bureau of the Health Professions, HRSA, National Center for Health Workforce Information and Analysis, (Grant 5 U76 MB 10001-02) and the Department of Health and Human Services, HRSA, US Bureau of Primary Health Care (Grant U68CS00161).

Executive Summary

Nurse practitioners (NPs), physician assistants (PAs) and certified nurse midwives (CNMs) play growing roles in the health care workforce. Experts recommended in the mid-1990s that their numbers be increased to address concerns about an inadequate supply and maldistribution of primary care practitioners. In response, educators have dramatically increased the numbers of students educated in these professions. Efforts are underway in many states to expand the scope of practice and enhance the reimbursement of these practitioners. Despite these developments, relatively little is known about the profile of the workforce in these three professions in California.

This report documents the contributions of these three professions to California's health care workforce. Findings presented in this report are based on the results of a survey mailed to all NPs, PAs and CNMs licensed to practice in California. The survey was administered by the California Office of Statewide Health Planning and Development (OSHPD) in 1998. OSHPD conducted this survey because existing sources of data were inadequate to answer many important questions about these professionals and to make comparisons across the three professions. The survey questions encompassed a variety of topics including education, labor force participation, specialty, and location and type of practice site, as well as the demographic characteristics of these professionals and their patients. Response rates for each of the three professions (66% for NPs, 57% for PAs, and 70% for CNMs) were sufficient to provide a broad overview of these professions at the state level.

This report was made possible through extensive collaboration among OSHPD, the UCSF Center for California Health Workforce Studies and representatives of each of the three professions surveyed. Funding was provided by two branches of the US Health Resources and Services Administration: the Bureau of Primary Health Care and the Bureau of Health Professions.

The survey's major findings are summarized below:

<u>Labor Force Participation and Employment Patterns</u>

- Most NPs, PAs and CNMs are practicing in their fields (80% of NPs, 93% of PAs, 80% of CNMs).

- Most NPs, PAs and CNMs are primarily engaged in providing patient care.

- 74% of NPs and 60% of PAs practice in primary care fields.[1]

- Private practices employed larger percentages of PAs and NPs than any other setting. Kaiser/HMO clinics employed the largest percentage of CNMs.

- Substantial percentages of NPs, PAs and CNMs furnish care to underserved populations. Forty-seven percent of CNMs and 39% of NPs and PAs practice in either a federally designated underserved area or in a community health center or county hospital.

Practitioners' Demographic Characteristics

- The majority of active NPs, PAs and CNMs are in their 40s or early 50s.

- PAs complete their education at a younger age than NPs and CNMs.

- Most NPs and CNMs are women; in contrast, men and women are equally represented among PAs.

- All non-white racial/ethnic groups are underrepresented among NPs and CNMs and some are underrepresented among PAs.

Patients' Characteristics

- NPs, PAs and CNMs report that high percentages of their patients are African-Americans and Latinos.

- NPs, PAs and CNMs report that on average over 25% of their patients are not fluent in English.

- NPs, PAs and CNMs report that large percentages of their patients are uninsured or enrolled in Medi-Cal (48% of NPs, 46% of PAs and 55% of CNMs).

NP/PA/CNM Educational Pipeline

- The supply of NPs, PAs and CNMs has grown dramatically over the past decade; half of the respondents completed NP, PA or CNM education in the 1990s.

- Most NPs, PAs and CNMs practicing in California were educated in California. (87% of NPs, 67% of PAs and 65% of CNMs).

1 This report uses the California Health Manpower Policy Commission's definition of primary care, which encompasses family practice, general internal medicine, general pediatrics and women's health/OB/GYN. Statistics for CNMs are not cited because all CNMs provide women's health/OB/GYN services.

Supplemental Information on CNM Practice and Education

- Among inactive CNMs, the most common reasons for not practicing were lack of CNM employment in the regions in which they live and inability to obtain hospital privileges.

Conclusion/Recommendations

- This survey provides valuable general information about California's NPs, PAs and CNMs. However, the response rate is insufficient for analysis of supply in small geographic areas within the state.

- The Board of Registered Nursing should collect basic information about NPs and CNMs in conjunction with licensure application and renewal and the Physician Assistant Examining Committee should collect similar information about PAs. These data should be shared with OSHPD, other state health agencies and researchers.

Preface

This report is the result of extensive collaboration among several organizations with strong interests in increasing knowledge about nurse practitioners (NPs), physician assistants (PAs) and certified nurse midwives (CNMs) in California.

The survey from which this report is derived was conducted by the California Office of Statewide Health Planning and Development (OSHPD), the state agency charged with addressing health workforce concerns. Several of OSHPD's programs involve NPs, PAs and CNMs. For example, the Song-Brown Program Family Physician Training Program[2] provides funding for family physician, family NP and PA education programs. The National Health Service Corps/ State Loan Repayment Program (NHSC/SLRP) repays student loans of primary care physicians, CNMs, NPs, PAs and dentists in exchange for service in communities designated as Health Professions Shortage Areas (HPSAs).

Over the years, OSHPD and other organizations have collected data on California's NPs, PAs and CNMs. A statewide survey of all PAs licensed in California was conducted in 1988[2] and a similar survey of NPs was completed in 1995.[3] Professional associations have also periodically collected data on PAs and CNMs.[4,5] NPs and CNMs were included in national and statewide sample surveys of all registered nurses.[6,7] In addition, some of California's NP, PA and CNM education programs periodically collect data on their graduates.

Although these previous surveys have provided useful information, they have also had important limitations. The questions on surveys of individual professions often were not sufficiently similar to permit comparisons across professions. The numbers of NPs and CNMs in many nursing surveys were too small to yield reliable estimates. Surveys conducted by professional associations and individual educational programs could not be generalized to professions as a whole.

2 California Health and Safety Code, Section 128225 (e).

3 Fowkes, VK: A Profile of California's Physicians Assistants (Correspondence). West J Med 1990, 153:328-329.

4 Gilliss CL. The 1995 California NP Data Base Project – A Report to the California Office of Statewide Health Planning and Development. San Francisco: UCSF Department of Family Health Care Nursing, June 1995.

5 American Academy of Physician Assistants. Physician Assistant Statistics and Trends, 1991-1998. Alexandria, VA: American Academy of Physician Assistants, 1999.

6 Paine LL. Characteristics of Nurse-Midwife Patients and Visits, 1991. American Journal of Public Health. 1999;89(6):906-909.

7 Barnes C, Sutherland S. Survey of Registered Nurses in California 1997. Sacramento, CA: California Board of Registered Nursing, February 1999.

8 Moses E. The Registered Nurse Population, March 1996. Rockville, MD: US Department of Health and Human Services, 1997.

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A proposed change in federal policy led OSHPD to endeavor to produce a more accurate and comprehensive source of data on NPs, PAs and CNMs. Following several years of deliberations, the US Bureau of Primary Health Care (BPHC) issued proposed revisions in the regulations used to designate primary care Health Professions Shortage Areas (HPSAs) in September 1998.[9] One of the proposed revisions called for the inclusion of NPs, PAs and CNMs when enumerating a community's supply of primary care providers, a key variable used to determine whether a community is eligible for designation as a HPSA. (Under current regulations only primary care physicians are included.) Recognizing that existing data sources were inadequate, OSHPD concluded that a new survey was needed. During the summer and fall of 1997, OSHPD staff worked with staff from the UCSF Center for California Health Workforce Studies and three NP, PA and CNM educators who served on OSHPD's NP/PA Advisory Committee to develop a brief survey instrument to be mailed to all individuals in these three professions who were licensed to practice in California. OSHPD administered the survey between June 1998 and August 1998. Data entry was completed by Sacramento State University through a contract with OSHPD. OSHPD staff then used the data to assess the impact of the proposed change in the HPSA designation regulations.[10] After this analysis was completed, OSHPD contracted with the UCSF Center for California Health Workforce Studies to conduct a comprehensive analysis of the survey data and produce this report.

9 For further information see Federal Register, September 1, 1998;63(169):46538-46555.

10 Note: The proposed HPSA designation regulations covered many changes in addition to the proposal concerning NP, PA and CNMs. For reference see Priscilla Gonzalez-Levia's letter to Libby Merrill, December 30, 1998. Copies of the letter are available from Priscilla Gonzalez-Levia, at the Office of Statewide Health Planning and Development, Primary Care Resources and Community Development Division, 1600 9th Street, Room 440, Sacramento, CA 95814.

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Chapter I

Introduction

Nurse practitioners (NPs), physician assistants (PAs) and certified nurse midwives (CNMs), play growing roles in the health care workforce. Each of these professions was established in response to concerns about access to primary care, particularly in impoverished rural and inner city communities. Although there are many similarities among these three types of professionals, there are important differences in their education. Today most NPs and CNMs are educated at the graduate level and most students are registered nurses.[11] A large percentage of NPs are educated in family nurse practitioner programs which prepare students to provide a wide range of primary care services to people of all ages. Other NP students specialize in specific areas within primary care such as pediatrics. CNM education focuses on women's health/ OB/GYN. PAs receive a broad education in the clinical and basic sciences, psycho-social/behavioral health, and health promotion. PA education programs admit students with a wide variety of prior education and professional experience, and educate students at multiple levels (e.g. certificate, bachelor's, master's). To assure standardization of preparation for practice all PAs must pass a single national certification examination.[12]

During the mid-1990s, perceptions of a shortage of primary care physicians prompted renewed interest in these professionals to augment the primary care workforce. Experts called for doubling the numbers of NPs, PAs and CNMs in the United States.[13]

California policymakers responded by substantially increasing funding for grants to NP and PA education under the Song-Brown Family Physician Training Act, administered by the Office of Statewide Health Planning and Development (OSHPD), Primary Care Resources and Community Development Division.[14] This effort and others have led to dramatic growth in the numbers of NPs, PAs and CNMs.[15] In addition, efforts are afoot in many states to expand the scope of practice and enhance the reimbursement of these health professionals.[16]

11 Gilliss CL, Mundinger MO. "How is the Role of the Advanced Practice Nurse Changing?" in E O'Neil and J Coffman, eds. Strategies for the Future of Nursing. CM Dower, JE Miller, EH O'Neil and the Task force on Midwifery. Charting a Course for the 21st Century: The Future of Midwifery. San Francisco: Pew Health Professions and the UCSF Center for the Health Professions, April 1999.

A few NP and CNM education programs offer tracks for students with degrees in non-nursing fields in which these students complete educational requirements for licensure as both RNs and NPs or CNMs.

12 The Physician Assistant Task Force on the Impact of Managed Care. Charting a Course for the 21st Century. San Francisco: Pew Health Professions Commission and UCSF Center for the Health Professions, 1998.

13 See, for example, The Pew Health Professions Commission. Nurse Practitioners: Doubling the Graduates by the Year 2000. San Francisco: The Pew Health Professions Commission, April 1994.

14 California Health and Safety Code, Section 128225(c).

15 Cooper RA, Laud P, Dietrich CL. Current and projected workforce of nonphysician clinicians. Journal of the American Medical Association. 1998;280(9):788-794.

16 Cooper RA, Henderson T, Dietrich CL. Roles of nonphysician clinicians as autonomous providers of patient care. Journal of the American Medical Association. 1998;280(9):795-802.

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These developments raise important questions about California's NPs, PAs and CNMs. Are most of them practicing in their respective fields? In what settings are they practicing? What types of services do they furnish? To what extent do they provide care to underserved populations? What are their demographic characteristics? Where are they educated? This report addresses these and other important questions about California's NPs, PAs and CNMs. The goal of this report is not to compare these three professions, but rather to document the contributions of these professions to California's health care workforce.

Findings presented in this report are derived from a survey of NPs, PAs and CNMs licensed to practice in California. The survey was administered by OSHPD in 1998 and funded by the US Health Resources and Services Administration.

This report provides an overview of California's NPs, PAs and CNMs. Numerous tables and graphs are included to enable readers to locate information easily. Chapter II summarizes the survey methodology. Findings from the survey are presented in Chapters III through VII. Employment patterns are discussed in Chapter III. Chapter IV describes NPs', PAs' and CNMs' demographic characteristics. Select characteristics of the patients of NPs, PAs and CNMs are presented in Chapter V. The educational pipelines for the three professions are described in Chapter VI. Chapter VII contains supplemental information about CNMs. The final chapter of the report presents conclusions and recommendations.

Chapter II

Methods

The data presented in this report are from a survey which identified all certified nurse midwives (CNMs), nurse practitioners (NPs) and physician assistants (PAs) holding active California licenses in 1998. The survey was mailed in June 1998. A second mailing was sent to nonresponders in August 1998. Survey forms were mailed along with copies of a cover letter that described the purpose of the survey and listed endorsements from CMN, NP and PA educational programs and professional associations.

The questionnaires were developed by a team composed of staff from OSHPD and the UC-San Francisco Center for California Health Workforce Studies, as well as representatives from each of the three professions. The questionnaires contained questions regarding the characteristics of NPs, PAs and CNMs and their patients. The topics included:

- workforce participation;
- specialty;
- location and type of practice site;
- location and type of education;
- demographic characteristics; and
- estimates of patients' demographic characteristics and health care coverage, including percentages of patients who are uninsured or on Medi-Cal.

The questionnaire for CNMs included several additional questions concerning the range of services CNMs provide, their types of educational preparation and, for those currently not practicing as CNMs, their reasons for not doing so. Copies of the survey instruments appear in Appendix A.

The following table displays response rates for each profession. Response rates varied across the three professions, ranging from a high of 70 percent for CNMs to a low of 57 percent for PAs.

Table II.A

	Nurse Practitioner		Physician Assistant		Certified Nurse Midwife		TOTAL	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Surveys Mailed	7,341	100%	2,938	100%	859	100%	11,138	100%
Respondents	4,865	66%	1,669	57%	601	70%	7,135	64%

The vast majority of respondents are located in California. As the following table illustrates, 99 percent of CNMs and NPs and 95 percent of PAs who responded practice and/or live in California.

Table II.B

	Nurse Practitioner		Physician Assistant		Certified Nurse Midwife		TOTAL	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Total Respondents	4,865	100%	1,669	100%	601	100%	7,135	100%
Respondents Practicing and/or Living in California	4,824	99%	1,579	95%	595	99%	6,998	98%

The remaining chapters of this report summarize findings for respondents practicing or living in California. The report focuses primarily on professionals practicing in California because its main purpose is to describe the contribution of NPs, PAs and CNMs to the delivery of health services in California. All respondents who indicated that they were professionally active and reported a practice address in California are classified as "active" regardless of their home address. This definition of "active" included a small number of professionals who practice in California but live in neighboring states. Respondents who live in California but are not practicing are classified as "inactive".

Chapter III
NP/PA/CNM Employment Patterns

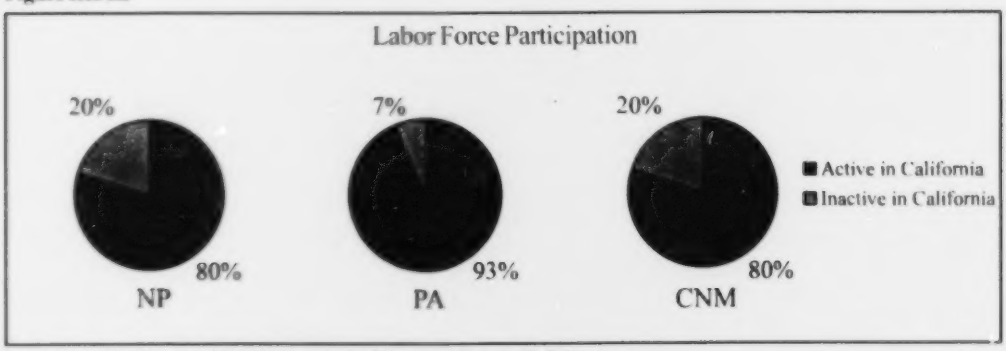
III.A Labor Force Participation

There are over three times as many licensed PAs in California as licensed CNMs, and over twice as many licensed NPs as licensed PAs. This report focuses on the survey results of the respondents who are active in California, which include 3,856 NPs, 1,476 PAs and 474 CNMs. Figure IIIA.2 shows that 80% of the NPs and CNMs and 93% of PAs responding to the survey are active practitioners.

Figure III.A.1
Number of Survey Respondents

	NP	PA	CNM
Active Respondents in California	3,856	1,476	474
Inactive Respondents in California	968	103	121

Figure III.A.2

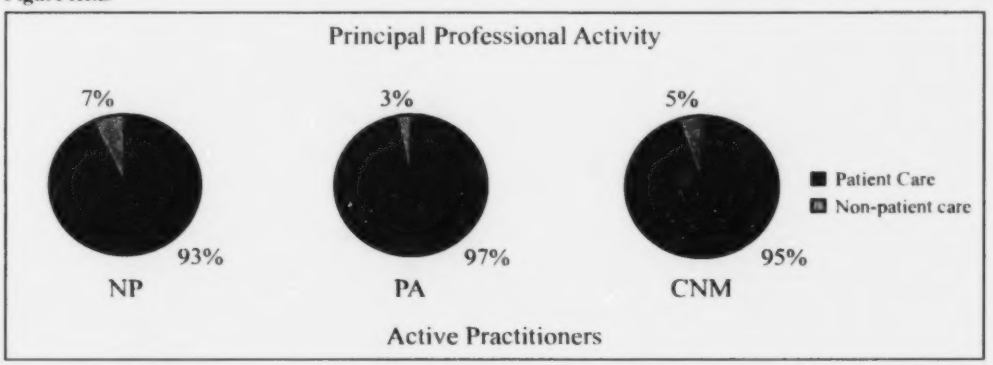


**Active in California defined as currently practicing in California*

III.B Principal Professional Activity[17]

Most of the practitioners in these fields spend the majority of their time providing patient care. Figure III.B shows that over 90% of active practitioners in all three professions spend the majority of their working hours in patient care. Of the small percent that spend the majority of their time outside of patient care, 49% spend the majority of their time in practice management, and 37% spend the majority of their time teaching. A small percentage of practitioners practice outside of their discipline, including 5% of CNMs who spend the majority of their time working in patient care as an NP.

Figure III.B



III.C Hours Worked in Patient Care and Non-Patient Care Activities

Seventy percent of the active PAs surveyed work 40 or more hours per week. In addition, 59% of active CNMs and 41% of active NPs work more than 40 hours per week. Figure III.C.1 shows that only a small percent of active practitioners are working fewer than 20 hours per week. All three of these professions average at least 80% of their working hours in patient care (see figure III.C.2). In addition to their patient care activities, practitioners spend an average of 7-8 hours per week working in non-patient care activities. The non-patient care hours include activities such as practice management and teaching.

17 Determined by how the practitioner spends the majority of his or her working hours.

Figure III.C.1

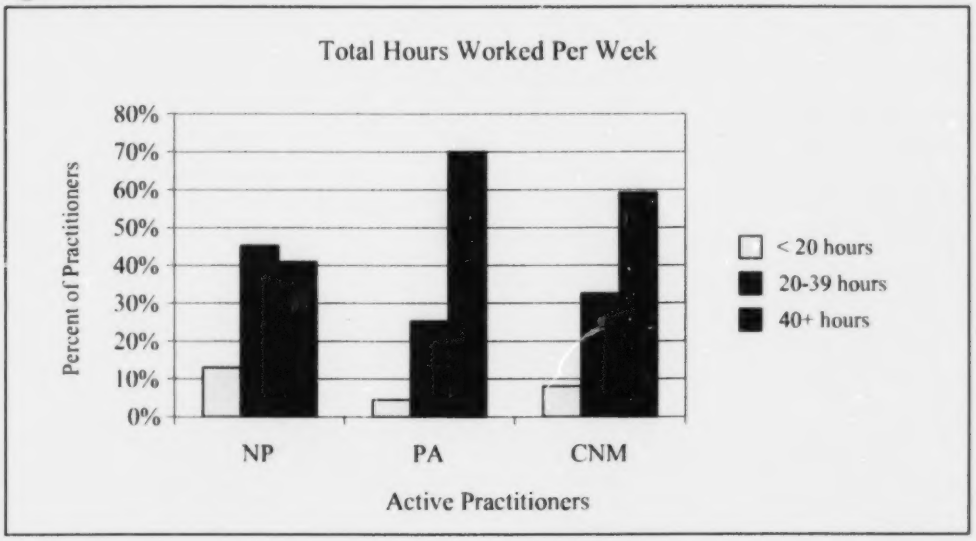
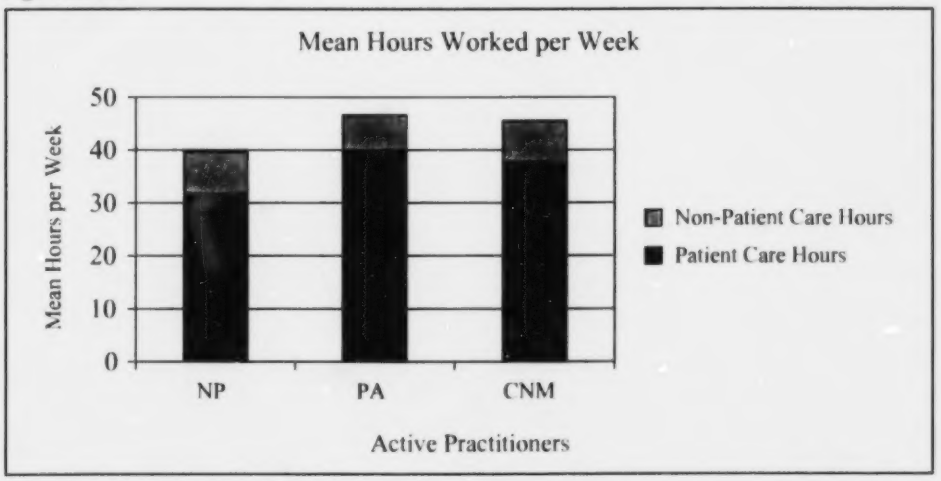


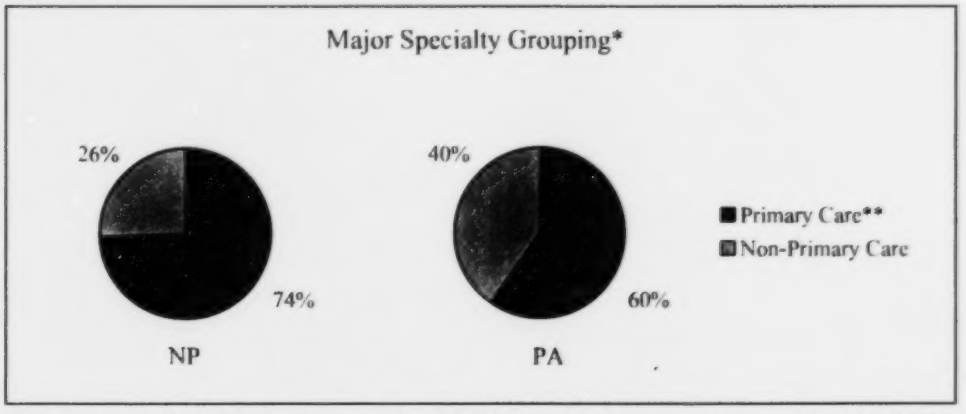
Figure III.C.2



III.D Major Practice Specialty[18]

The majority of NPs (74%) and the majority of PAs (60%) practice in primary care. (As defined by the California Health Manpower Policy Commission, primary care includes family practice, general adult medicine, general pediatrics and women's health/OB-GYN.) Figure III.D.2 demonstrates that more than 25% of NPs specialize in women's health/OB-GYN compared to 4% of PAs. NPs are also more likely to practice in general adult medicine or general pediatrics. Alternately, figure III.D.2 shows that PAs are much more likely to specialize in family practice, emergency medicine or general surgery than NPs.

Figure III.D.1



***Data not shown for CNMs because essentially all CNMs provide primary care in women's health/OB/GYN**
****Primary Care includes Family Practice, General Adult Medicine, General Pediatrics and Women's Health/OB/GYN**

Figure III.D.2
Major Specialty

	Nurse Practitioner	Physician Assistant
Family Practice	25.2%	45.7%
General Adult Medicine	12.2%	6.1%
General Pediatrics	11.4%	3.6%
Women's Health/OB/GYN	25.7%	4.3%
Geriatrics	4.0%	0.9%
Emergency Medicine	1.4%	12.8%
General Surgery	1.5%	11.9%
Internal Medicine Subspecialty	3.4%	4.1%
School	2.9%	0.3%
Other	12.6%	10.3%

18 Statistics for CNMs are not cited because all CNMs provide women's health /OB/GYN services

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III.E Primary Practice Site

Private practices employed larger percentages of NPs (26.4%) and PAs (39.8%) than any other type of practice site. Kaiser/HMO clinics (22.5%) and private practices (20.9%) employed the largest percentages of CNMs. Twenty-four percent of NPs listed a secondary practice site compared to 6% of PAs and only 5% of CNMs. Of NPs listing a secondary site location, 30% listed a private practice and 20% listed a community health center or a county health facility.

Figure III.E

	NP	PA	CNM
Private practice	26.4%	39.8%	20.9%
Kaiser/HMO clinic	14.4%	7.4%	22.5%
ER/Urgent care center	2.5%	13.4%	N/A
Inpatient hospital ward	3.8%	4.9%	N/A
Hospital outpatient	7.3%	3.8%	N/A
School based clinic	5.6%	1.2%	N/A
Community health center	12.7%	12.1%	11.0%
County hospital/clinic/department	7.2%	4.4%	11.5%
Nursing home	1.7%	0.6%	N/A
VA/other government facility	4.5%	2.8%	2.6%
Private nurse-midwifery practice	N/A	N/A	8.4%
Freestanding birth center	N/A	N/A	3.1%
Hospital (birth only)	N/A	N/A	9.3%
Other	13.8%	9.5%	10.6%

III.F Practitioners Caring for Underserved Populations

Significant proportions of NPs, PAs and CNMs practice in federally designated underserved areas. There are two types of designations: Health Professions Shortage Areas (HPSAs)[19] and Medically Underserved Areas (MUAs)[20]. These three professions have relatively high percentages of practitioners working in HPSAs (17% of NPs, 21% of PAs and 20% of CNMs). In addition, a relatively large percent of work in a Medically Underserved Area (MUA): 14% of NPs, 17% of PAs and 22% of CNMs.[21] (See figure III.F.1.)

Some NPs, PAs and CNMs who are not practicing in shortage areas may nevertheless provide care to underserved populations because they work in facilities that serve underserved populations, such as community health centers and county hospitals.

19 An area is eligible for HPSA designation if it has less that one primary care physician per 3,500 persons. Grumbach K, Coffman J, Liu R, Mertz E. Strategies for Increasing Physician Supply in Medically Underserved Communities in California. Berkeley, CA: California Policy Research Center, 1999, p 4-5.

20 The criteria for determining whether an area qualifies as a MUA employs a four-variable index of Medical Underservice, including percent with incomes below poverty, population-to-primary care physician ratio, infant mortality rate and percent elderly.

21 These results were determined by the practice address listed. If no practice address was listed then the mailing address was used to estimate practice location. Overall approximately 80% of active respondents listed a practice address.

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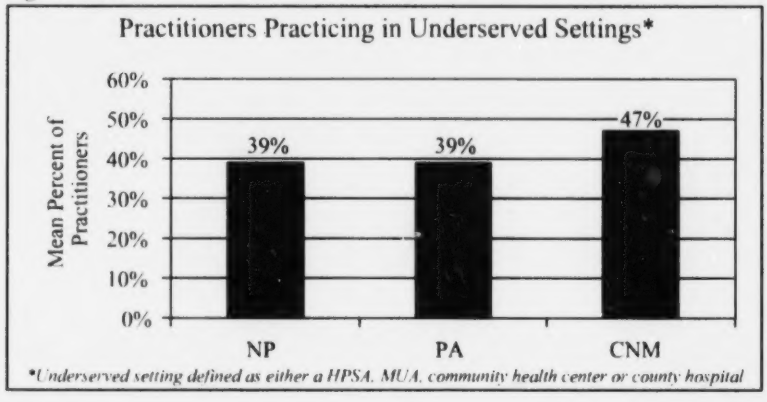
As figure III.F.2 shows, 47% of CNMs practice in underserved settings. This includes practitioners working in either a HPSA, MUA, community health center, or county hospital. Thirty-nine percent of NPs and PAs also practice in underserved settings.

Figure III.F.1
Practitioners Working in Underserved Geographic Areas

	NP	PA	CNM
Working in a HPSA	16.9%	20.7%	19.9%
Working in an MUA	13.6%	16.7%	21.6%

Figure III.F.2



III.G Rural vs. Urban Location

Most practitioners surveyed are practicing in urban Medical Services Study Areas (MSSAs).[22] Twelve percent of NPs and 16% of PAs and CNMs practice in rural MSSAs. These percentages are roughly comparable to the percent of the overall California population that lives in rural MSSAs. MSSAs are sub-county aggregations of census tracts that are considered rational service areas for health workforce planning and for designation of areas with shortages of health professionals. An MSSA is defined as rural if the population density is less than 250 per square mile and no significant portion of the MSSA is within a city greater than or equal to 50,000 people.

Figure III.G
Percent of Active California Practitioners (Urban vs. Rural)

Practice Location	NP	PA	CNM	CA Population
Urban*	87.6%	84.0%	83.9%	86.5%
Rural*	12.4%	16.0%	16.1%	13.3%

* *Based on MSSA designation*
***Source: 1996 Claritas Population Estimates and the Office of Statewide Helath Planning and Development*

Note: Both Urban/Rural location, and HPSA/MUA designation were determined by the practice address lised on the survey. If no practice address was listed then the mailing address was used. Percent of Active practitioners listing a practice address: NP=80.3%, PA=81.6%,CNM=78.3%.

22 The purpose of using Medical Service Study Areas (MSSAs) to analyze practice site location was to obtain a more accurate understanding of where practitioners are working. For instance, in California there are many large counties that have both urban and rural areas; MSSAs are smaller subsets of those counties which are more appropriate for determining the characteristics of the communities primary care practitioners serve. MSSAs were originally designated by the California Health Manpower Policy Commission in 1976, and are reviewed every ten years. MSSAs are considered rational service areas for health professions analysis and programs. California is divided into 487 MSSAs. Rules for determining MSSAs: Census county divisions are to be used as the basic unit in forming the MSSA. Health Systems Agency lines are to be preserved if possible, and given consideration where feasible. All communities within the MSSA are to be within twenty "constructive miles" (as defined by the Public Utilities Commission) from the largest population center within that MSSA. (Codified by the California Health Manpower Policy Commission, March 2, 1983, revised June 11, 1997)

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Chapter IV
NP/PA/CNM Demographics

IV.A Current Age Distribution

As shown in figure IV.A.1, PA respondents are on average a few years younger (43 years old) than CNMs and NPs (46 and 47 years old respectively). The inactive practitioners are on average 2-6 years older than their active counterparts. In addition, figure IV.A.2 shows that there is a larger percent of PAs under 35 compared to NPs and CNMs.

Figure IV.A.1

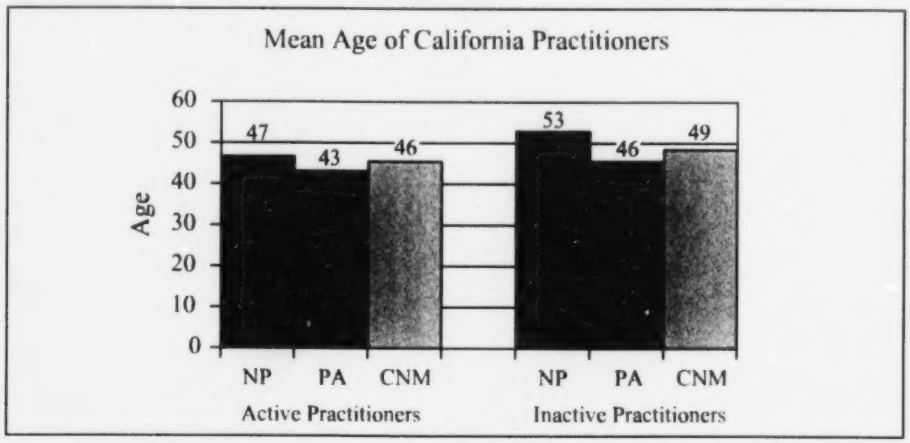
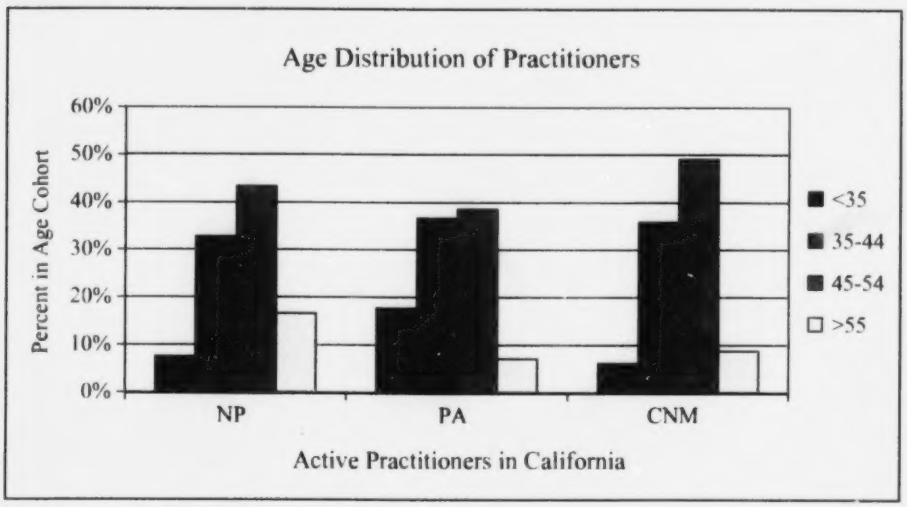


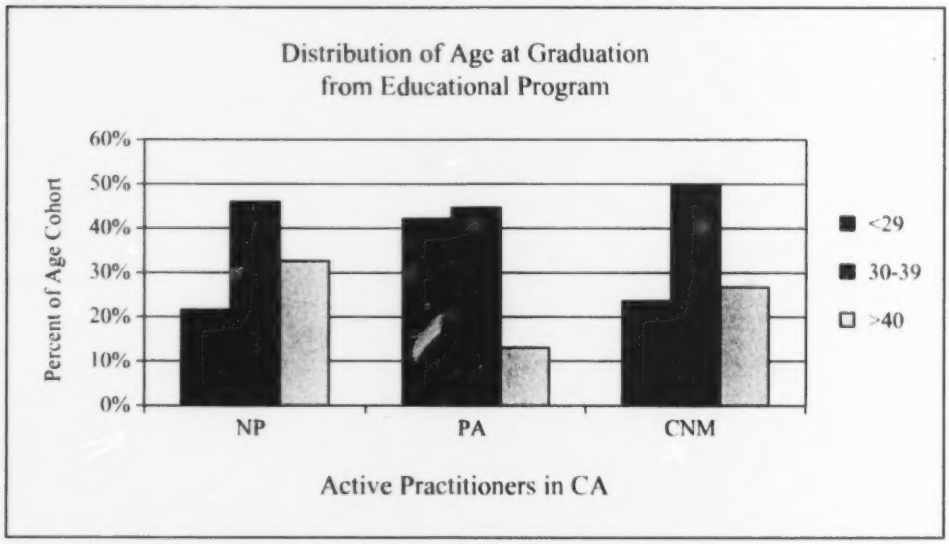
Figure IV.A.2



IV.B Age at Graduation

The average age of graduation for PAs active in California was 32 while the average ages for NPs and CNMs were 36 and 35, respectively (see figure IV.B). Forty-two percent of PAs graduated before age 30 compared to 24% of CNMs and 21% of NPs. In addition, 33% of NPs graduated after age 40, compared to 13% of PAs and 26% of CNMs.

Figure IV.B



IV.C Sex

One of the biggest differences between PAs and NPs is the gender distribution. While PAs are almost 50-50 male and female, 96% of NPs and 99% of CNMs surveyed are female. Both NPs and CNMs must be educated as RNs before pursuing their advanced degrees.[23] In California, 93% of RNs are female[24]; thus, most potential NPs or CNMs are women.

Figure IV.C
Sex of Active California Practitioners

	NP	PA	CNM
Female	95.9%	50.8%	98.7%
Male	4.1%	49.3%	1.3%

23 A small number of NP and CNM educational programs admit students who are not already licensed as RNs. These students must complete an accelerated RN curriculum before proceeding to NP or CNM education.

24 Survey of Registered Nurses in California 1997, Sacramento, CA: California Board of Registered Nursing, February 1999 page 3.

IV.D Race/Ethnicity

Racial and ethnic minorities are underrepresented in all three professions. Of the three types of practitioners, PAs have the greatest racial and ethnic diversity, and come closest to matching the population of California. Asians and Pacific Islanders are underrepresented among NPs, PAs and CNMs. This contrasts with the profession of medicine, in which Asians and Pacific Islanders have relatively high rates of participation relative to their proportion of the overall state population.[25] While 8% of PAs are African American, only 5% of CNMs and 4% of NPs are African American. Despite making up almost 30% of the California population, Hispanics/Latinos are the most underrepresented minorities among respondents. Hispanics/Latinos comprise just 6% of NPs, 13% of PAs and 4% of CNMs.

Figure IV.D
Race/Ethnicity of Active Practitioners

	NP	PA	CNM	CA Population*
African-American	4%	8%	5%	7%
American-Indian	1%	1%	0%	1%
Asian/Pacific Islander	7%	7%	3%	11%
Hispanic/Latino	6%	13%	4%	30%
White (non-Hispanic)	81%	67%	86%	52%
Other	2%	4%	2%	

** 1998 Population. State of California, Department of Finance, County Projections with Race/Ethnic Detail. Sacramento,California, June 1999. http://www.dof.ca.gov/html/demograp/repndat.htm*

25 Grumbach K, Coffman J, Lui R, Mertz E. Strategies for Increasing Physician Supply in Medically Underserved Communities in California. Berkeley, CA: California Policy Research Center, 1999, p 8.

Chapter V
Characteristics of NP/PA/CNM's Patients

Survey participants were asked to estimate percentages of patients in their practice during 1997 with respect to race/ethnicity, fluency in English and whether the patients were uninsured or Medi-Cal beneficiaries. This chapter presents data derived from those estimates.

V.A Race/Ethnicity of Patients

With the exception of Asian and Pacific Islanders, respondents' estimates revealed that they treat proportionally more minority patients relative to the population distribution of California. Overall, CNMs reported that Hispanic/Latino patients account for 44% of their patients. Thirty-seven percent of CNMs reported that over 50% of their patients were Hispanic or Latino. These findings are consistent with the racial and ethnic distribution of births in California: Hispanics and Latinos account for 48% of births in California.[26] Survey responses also suggest that African-Americans utilize these professionals at proportionally higher rates than their share of the California population. The only minority groups not reported to utilize these practitioners at proportionally higher rates are Asians and Pacific Islanders, who represent only 5% of CNMs' patients, even though they represent 11% of California births. Asian and Pacific Islanders are also reported to use NP and PA services at proportionally lower rates, representing 8% of NP patients and 7% of PA patients. Whites appear to utilize NPs and PAs proportionally less, relative to their share of the California population (44% of NP patients and 42% of PA patients). CNMs have a proportion of whites in their practice (38%) that is similar to whites' proportion of California births (34%).

Figure V.A
Estimates of Patients' Race/Ethnicity
Mean Percentage of Patients Seen

	NP	PA	CNM	CA Births*	CA Population**
African-American	13%	13%	10%	7%	7%
American-Indian	2%	2%	1%	1%	1%
Asian/Pacific Islander	8%	7%	5%	11%	11%
Hispanic/Latino	31%	35%	44%	48%	30%
White (non-Hispanic)	44%	42%	38%	34%	52%
Other	2%	1%	1%		

* *State of California, Department of Finance, Race/Ethnic Population Estimates: Components if Change for California Counties, April 1990 to July 1997.*

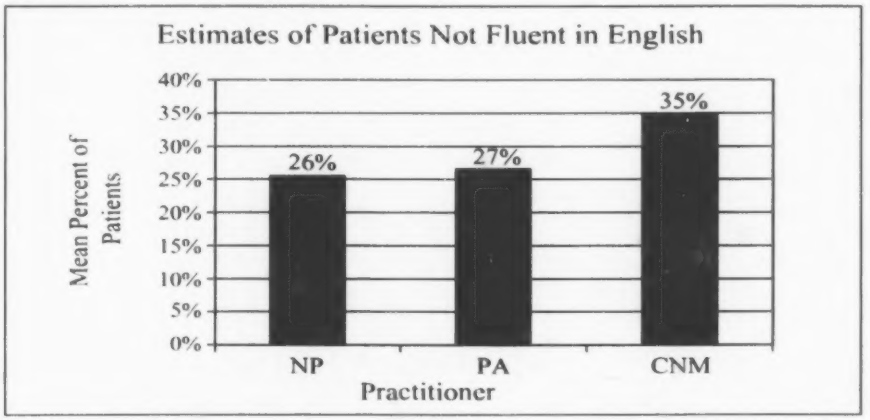
** *State of California, Department of Finance, County Population Projections with Race/Ethnicity Detail. Sacramento, California, December 1998 http://www.dof.ca.gov/html/demograp/repndat.htm*

26 State of California, Department of Finance, Race/Ethnic Population Estimates: Components if Change for California Counties, April 1990 to July 1997. California, June 1999.

V.B Fluency in English

All three professions reported that over 25% of their patients were not fluent in English. CNMs report that on average 35% of their patients were not fluent in English as were 26% of NP's patients and 27% of PAs' patients. There was no comparable data available for the percent of Californians who were fluent in English in 1997.[27]

Figure V.B



V.C Uninsured and Medi-Cal Patients

Respondents were asked to estimate the percent of their patients who are uninsured and the percent of their patients who are Medi-Cal beneficiaries. The results of these estimates show that these professionals are treating a large percentage of low-income patients.

When simply looking at uninsured patients, NPs report that they treat the largest proportion of patients who are uninsured (23%) compared to PAs (18%) and CNMs (11%) (see figure V.C.1). In California in 1997, 24% of the population under 65 was uninsured.[28]

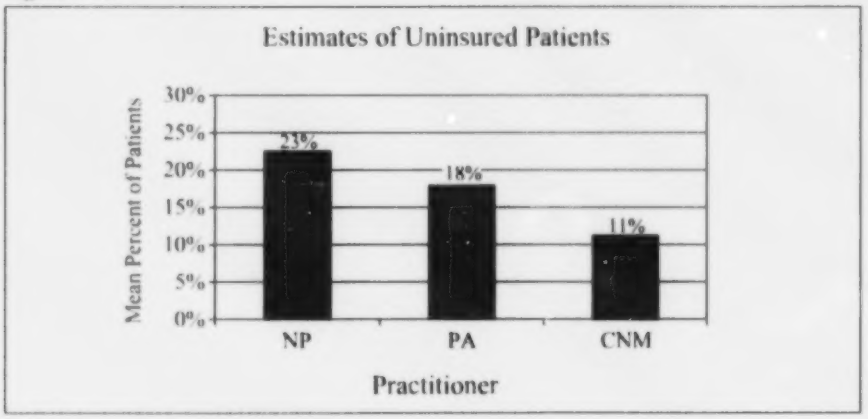
Alternately, analyzing Medi-Cal beneficiaries alone, CNMs treat the largest percent of patients who receive Medi-Cal (47%) compared to PAs (30%) and NPs (28%) (see figure V.C.2). Twenty-three percent of NPs, 24% of PAs and 44% of CNMs estimated that over 50% of their patients were Medi-Cal recipients. The finding that CNMs have a larger percentage of Medi-Cal patients than NPs and PAs is not surprising because CNMs are primarily caring for pregnant women. Low-income pregnant women are more likely to qualify for Medi-Cal than other

27 The 1990 Census did collected information on fluency. In addition to being outdated, the Census data are not comparable to the data from this survey because the Census survey used many more (subjective) categories to describe degrees of fluency then this survey. The survey used in this report simply asked "For 1997, what percent of your patients were not fluent in English?".

28 Schauffler H, McMenamin S, Cubanski J. The State of Health Insurance in California, 1998 Berkeley, CA: University of California, Berkeley, Center for Health and Public Policy Studies January 1999. Most uninsured persons have low-incomes.

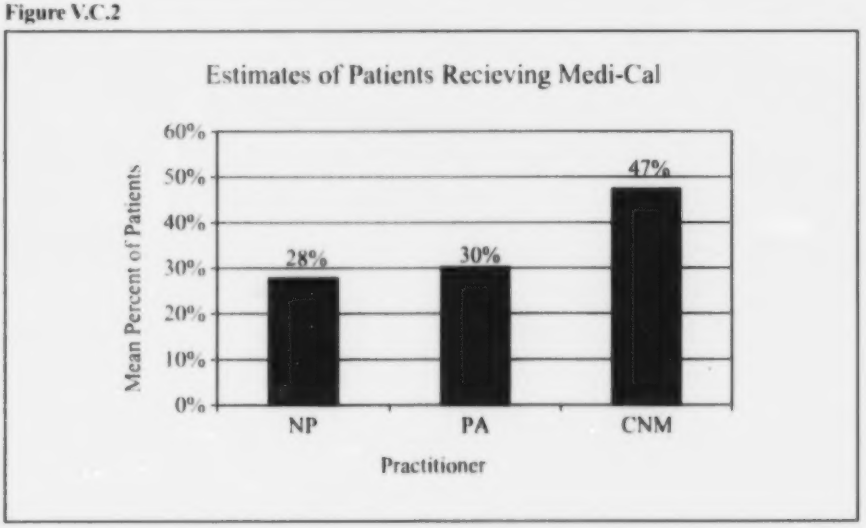
low-income persons. The percent of births in California covered by Medi-Cal is 38%[29]; therefore, CNMs appear to be performing proportionally more Medi-Cal births than the percent of Medi-Cal births in California.

Figure V.C.1



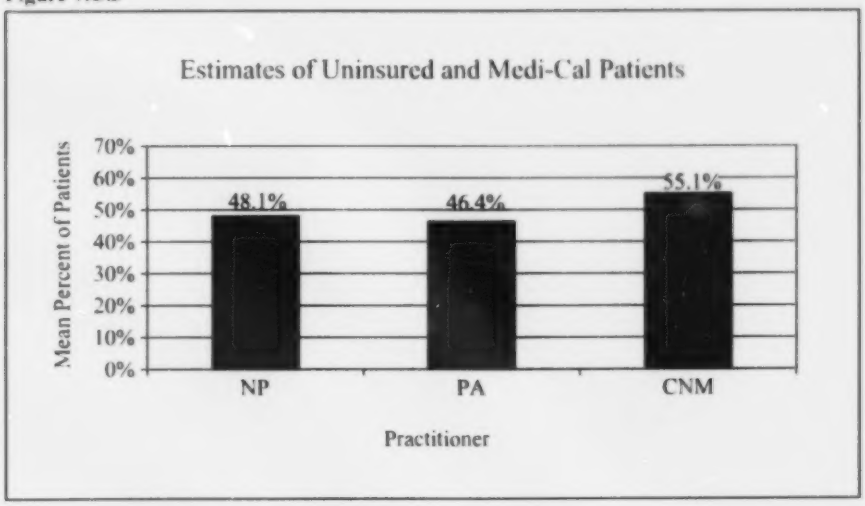
NPs estimated that 48% of their patients are either uninsured or Medi-Cal beneficiaries. Additionally, 46% of PA patients and 55% of CNM patients are either uninsured or Medi-Cal beneficiaries. About 25% of practitioners estimate that 90% or more of their patients are uninsured or Medi-Cal beneficiaries.

Figure V.C.2



29 State of California, Department of Health Services, Medical Care Statistics Section. Medi-Cal Funded Deliveries 1997. Sacramento, California, March 1999, Tables A and 6.

Figure V.C.3

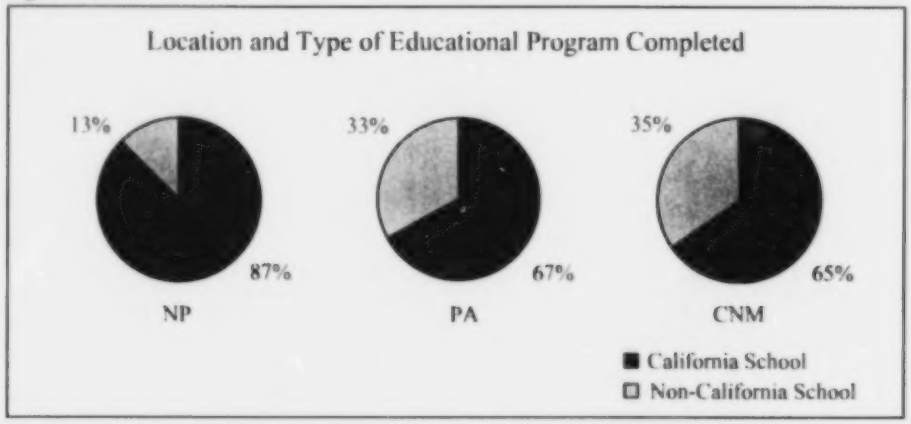

Estimates of Uninsured and Medi-Cal Patients
Mean Percent of Patients
70%
60%
50%
40%
30%
20%
10%
0%
48.1%
46.4%
55.1%
NP
PA
CNM
Practitioner

Chapter VI
NP/PA/CNM Educational Pipeline

VI.A Location and Educational Program

The majority of practitioners attended a California school. Eighty-seven percent of NPs, 67% of PAs and 65% of CNMs were educated in California.

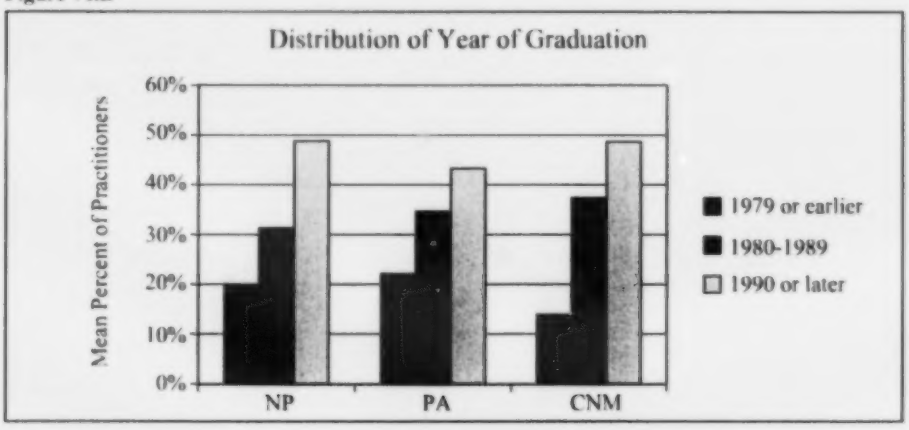
Figure VI.A



VI.B Year of Graduation

Almost half of all of the practitioners graduated after 1990, indicating that the number of practitioners has grown dramatically over the past decade. While PAs on average are younger than CNMs, a greater proportion of PAs graduated before 1980 (22%) compared to CNMs (14%) or NPs (20%). Although many NPs and CNMs received their education relatively recently, they tended to enter and graduate from education programs at an older age than PAs.

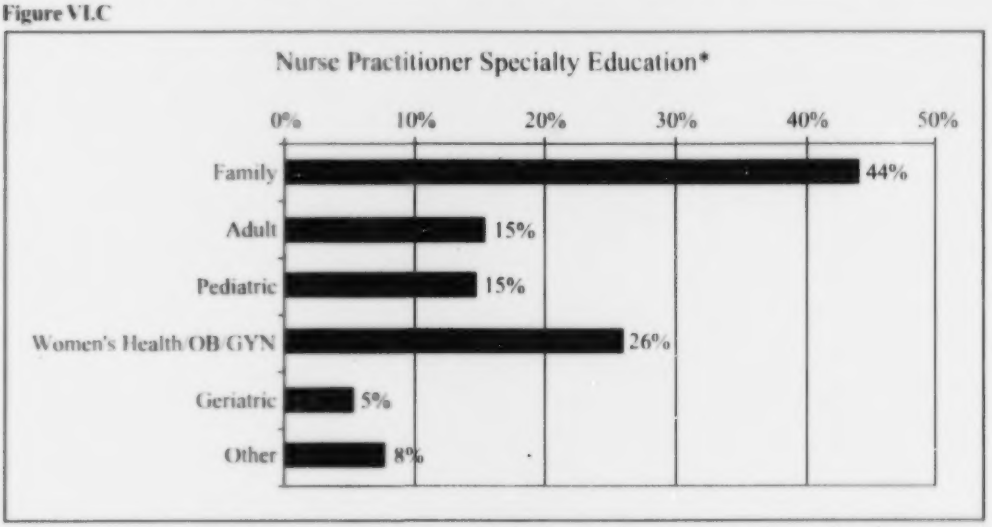
Figure VI.B



VI.C Percent of NPs Educated in Major Specialty Groupings

Figure VI.C demonstrates that overall a large percent of NPs are educated in primary care specialties. Forty-four percent were educated as family NPs, which prepares NPs to treat people of all ages for a broad range of diseases and conditions. One in four NPs are educated in women's health/OB/GYN. In general, NPs practice in the specific area in which they were educated. Of the NPs practicing in women's health, 87% were trained in women's health/OB/GYN. Only 11% of NPs were trained in multiple specialties. Of those 11%, the most common combination of specialty education reported was family health and women's health/OB/GYN.

Figure VI.C



**Adds to more than 100% because respondents could check more than one area of specialty education.*

Chapter VII
CNMs

This chapter reports the results of supplemental questions asked only of CNMs.

VII.A Reasons For Not Practicing as a CNM

Twenty percent of CNMs who responded to the survey are inactive (see figure VII.A.1). Among those CNMs who are inactive, the most frequent reason for not practicing is that there is no CNM employment available in their region (41%). Other reasons noted were the unavailability of physician consultation and hospital privileges, the cost of malpractice insurance and general dissatisfaction with the profession. These results should be interpreted with caution because the sample size of inactive CNMs in this survey was small (n= 111)[30]. The non-respondents in this survey might include a higher percentage of inactive CNMs, who might have different characteristics from the inactive respondents and, thus, may have different reasons for not practicing.

Figure VII.A.1

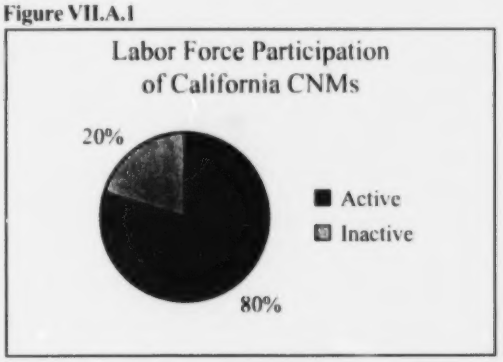


Figure VII.A.2
Reasons for Not Practicing as a CNM
(checked all that applied)

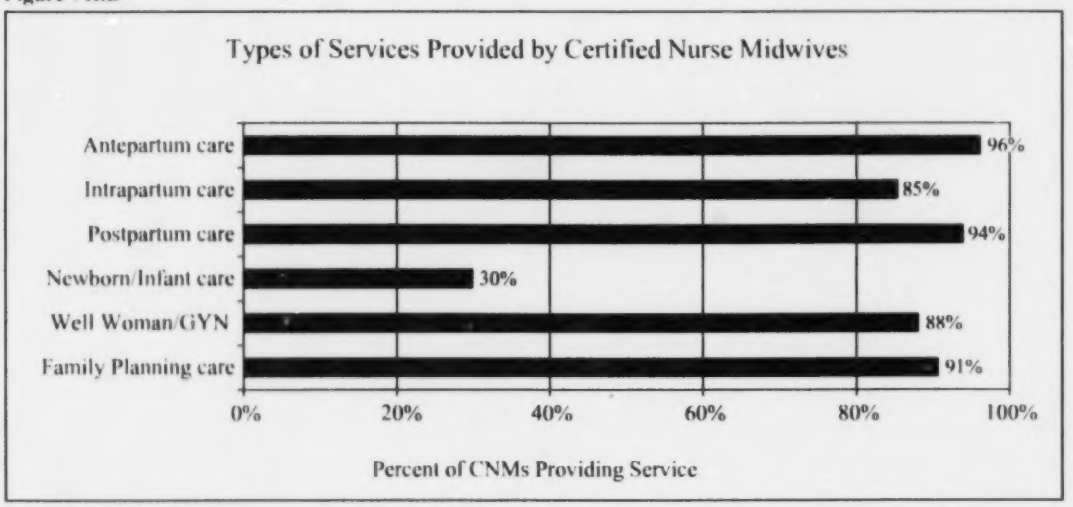
No CNM employment available in my region	41%
No physician backup available	20%
Dissatisfied with demands of profession	20%
Cost of malpractice insurance	20%
No ACNM certification	10%
Unable to obtain hospital privileges	21%
Other	47%

30 The number of inactive CNM respondents to this survey was 121. Ten inactive CNM respondents did not indicate a reason for not practicing.

VII.B Type of Services Provided by CNMs

Figure VII.B shows the services provided by CNMs and demonstrates that most CNMs provide a complete range of reproductive health services from family planning to postpartum care. The vast majority (85%) of active CNMs attend births. In addition, 30% of CNMs indicated that they provided newborn or infant care.

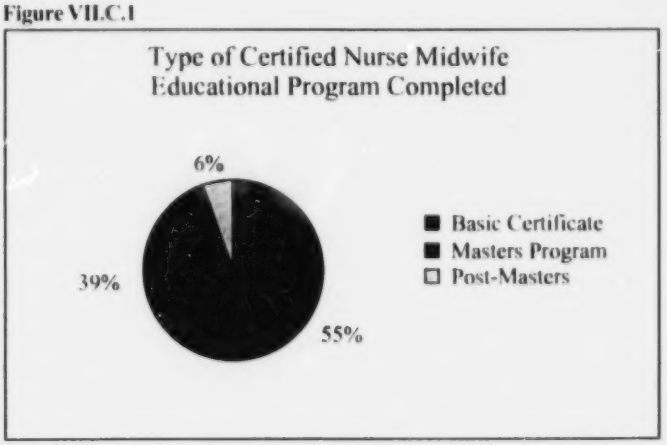
Figure VII.B



VII.C Type of CNM Educational Program Completed

Figure VII.C.1 shows that 55% of active CNMs have completed a basic certificate program, 39% have completed a masters program and 6% have completed a post-masters certificate program.

Figure VII.C.1



Chapter VIII
Conclusions & Recommendations

The survey data presented in this report indicate that NPs, PAs and CNMs are making important contributions to California's health care workforce. Major findings are summarized below.

- The numbers of NPs, PAs and CNMs in California have grown dramatically over the past decade.
- Most NPs, PAs and CNMs are practicing in their fields.
- Most NPs, PAs and CNMs spend most of their working hours providing direct patient care.
- The majority of NPs, PAs and CNMs provide primary care services.
- NPs, PAs and CNMs practice in a wide variety of settings.
- NPs, PAs and CNMs care for large numbers of underserved persons.
- Most minority groups are underrepresented in all three professions.
- Most NPs, PAs and CNMs are in their 40s and 50s.
- Most NPs, PAs and CNMs practicing in California were educated in California.

Limitations

This survey has two important limitations. First, although the response rates for the individual professions are sufficient to draw general conclusions about the three professions at the state level, this survey cannot be used to describe supplies of NPs, PAs and CNMs in small areas within California. Much higher response rates would be needed to generate accurate information about small areas, particularly sparsely populated rural areas which may have only one or two NPs, PAs or CNMs. As a consequence, OSHPD cannot use these data to determine which communities in California are eligible for designation as Primary Care Health Professions Shortage Areas (HPSAs) or Medically Underserved Areas (MUAs) under the proposed new methodology.

A second limitation concerns uncertainty about whether survey respondents are representative of all NPs, PAs and CNMs in California. Analysis of potential response bias was limited to geographic distribution because the only data available about non-respondents were their

mailing addresses. An analysis of response rates by county found minimal differences across counties. This suggests the results are not biased toward NPs, PAs and CNMs in any particular region within the state. In addition, estimates of NPs and PAs' demographic characteristics were very similar to those from a 1995 survey of California NPs[31] and from the California subsample of 1998 survey of PAs[32], respectively. However, there may be some important differences between respondents and non-respondents. For example, the survey may overstate the percentages of NPs, PAs and CNMs in active practice because individuals who are not practicing may have been less likely to complete the survey.

Recommendations

The California Board of Registered Nursing (BRN) should collect basic information about CNMs and NPs in conjunction with licensure application and renewal and make this information available to other state agencies and to researchers. The California Physician Assistant Examining Committee (PAEC) should collect similar data about PAs.

Information about NPs, PAs and CNMs' demographic characteristics and their education should be collected at the time of initial application for licensure in California (upon completion of education or relocation from another state). Brief surveys about practice location and employment patterns should be sent to licensees with licensure renewal materials to ensure that this information is current. Information collected through initial application and renewal surveys should be entered into a database that is updated regularly and shared with OSHPD. Other states, such as New York, have successfully implemented similar surveys.

California policymakers could use information obtained from licensing board surveys for a variety of purposes. Unlike data from the current survey, information obtained from licensing board surveys could be used by OSHPD in reviewing requests for HPSA and MUA designations because data would be collected on all NPs, PAs and CNMs licensed to practice in the state. OSHPD and other state agencies could also use these data to track the practice locations of NPs, PAs and CNMs participating in the State Loan Repayment Program, graduates of NP and PA education programs receiving Song-Brown funds, and participants in other programs aimed at increasing the supplies of NPs, PAs and CNMs in shortage areas. Finally, researchers could use these data to analyze trends over time in the employment patterns, geographic distribution and demographic characteristics of these professionals.

Monitoring trends in the supply of NPs, PAs and CNMs also will be important for informing educational policies in California. A majority of these professionals received their

31 Colliss CL. The 1995 California NP Data Base Project – A Report to the California Office of Statewide Health Planning and Development. San Francisco: UCSF Department of Family Health Care Nursing, June 1995.

32 American Academy of Physician Assistants. Physician Assistant Statistics and Trends, 1991-1998. Alexandria, VA: American Academy of Physician Assistants, 1999.

education in institutions that receive public funds. The recent rapid growth in the supply of these professionals may reflect greater demand for a more professionally diversified clinician workforce. Ongoing evaluation will be required to ensure that the future supply and distribution of these professionals is appropriate to the state's workforce requirements.

The benefits of obtaining more timely, complete and accurate data about these professions outweigh the costs of surveying them in conjunction with licensure application and renewal. Implementing such surveys would require initial investment of resources at the BRN and PAEC to develop survey instruments and electronic databases. However, once this infrastructure is developed the incremental costs of distributing surveys and entering data would be minimal.

The BRN already has legislative authority to collect such data and share them with OSHPD.[33] In addition, the BRN already collects some relevant data through its periodic sample surveys of registered nurses and a project conducted with the National Council of State Boards of Nursing. New legislation would be needed to authorize the PAEC to collect and disseminate comparable data on PAs.[34]

33 California Health and Safety Code Sections 127750-127800.

34 At one time, the Medical Board and its committees, such as the PAEC, had authority to collect workforce data and share them with OSHPD. However, this authority was repealed by Chapter 1206 of the California Statutes of 1994.

APPENDIX

STATE OF CALIFORNIA - HEALTH AND WELFARE AGENCY PETE WILSON, Governor

OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
OFFICE OF THE DIRECTOR
1600 9th Street, Room 433
Sacramento, California 95814
(916) 654-1606 FAX (916) 653-1448

June 1998

Dear Colleague:

The Office of Statewide Health Planning and Development is conducting its first statewide survey of nurse practitioners (NPs), physician assistants (PAs), and certified nurse midwives (CNMs). We need your assistance. Please take a few minutes to complete and return the enclosed survey form ***by July 25, 1998.*** Your response is very important to us.

This survey is designed to provide needed data about NP, PA, and CNM practice throughout California. The information will be used to direct resources for training programs and to meet requirements for federal funding. In recent years, the State has sponsored initiatives in support of NP, PA, and CNM training in order to address health professional shortages in California's medically underserved areas. The data from this survey will help direct resources where they are most needed, and will also help evaluate the impact of funding decisions.

The survey is being distributed to all PAs, NPs, and CNMs licensed and/or certified in the State. If you hold dual licenses or certifications, you may receive more than one survey form. Please return your survey in the envelope provided. If you have any questions or comments, you may contact our Project Coordinator, Megan Florida, at (916) 654-1835. Thank you so much for your time and cooperation.

Sincerely,

David Werdegar

David Werdegar, MD, MPH
Director

Enclosures

The following programs and organizations support and ***encourage you to complete*** the Office of Statewide Health Planning and Development's 1998 Nurse Practitioner (NP)/Physician Assistant (PA) and Certified Nurse Midwife (CNM) California Statewide Survey:

Associations:

American College of Nurse Practitioners
American Nurses Association - California
California Academy of Physician Assistants
California Coalition of Nurse Practitioners
California Nurse-Midwives Association
California School Nurses Organization

Physician Assistant Programs:

Physician Assistant Program
College of Allied Health
Drew University of Medicine and Science

Primary Care Associate Program
Stanford University School of Medicine

Nurse Practitioner/Physician Assistant Program
University of California, Davis

Primary Care Physician Assistant Program
University of Southern California

Physician Assistant Program
Western University of Health Sciences

Nurse Practitioner Programs:

School of Nursing
Azusa Pacific University

Family Nursing Program
California State University, Bakersfield

Department of Nursing
California State University, Fresno

Department of Nursing
California State University, Long Beach

Graduate Studies, Department of Nursing
California State University, Los Angeles

Graduate Program in Nursing
Loma Linda University

Family Nurse Practitioner Program
Samuel Merritt College

Family Nurse Practitioner Program
San Francisco State University

School of Nursing
San Jose State University

Family Nurse Practitioner Program
University of California, Irvine

School of Nursing
University of California, Los Angeles

Family Nurse Practitioner Program
University of California, San Diego/
San Diego State University

Department of Family Health Care Nursing
School of Nursing
University of California, San Francisco

Graduate Program, School of Nursing
University of San Francisco

Nurse-Midwifery Programs:

Midwifery Education Program
Education Programs Associates

Nurse-Midwifery Education Program
College of Allied Health
Drew University of Medicine and Science

Nurse-Midwifery Education Program
University of California, San Diego/
San Diego State University

Interdepartmental Nurse-Midwifery Education
Program, University of California, San Francisco/
San Francisco General Hospital

1998 Nurse Practitioner (NP)/Physician Assistant (PA) California Statewide Survey

1. Do you currently practice as an NP and or PA *(include academic or administrative positions)*?
   ☐ YES ☐ NO *(if No, skip to question #6)*

2a. In 1997, how many **hours per week** (on average) did you provide *patient care* as:

NP	☐	hours
PA	☐	hours
Other health professional	☐	hours

b. When you worked as an NP and/or PA, how many **hours per week** (on average) were devoted to the following *non-patient care* activities?

Management	☐	hours
Teaching/Research	☐	hours
Other	☐	hours

3. When you work as an NP and/or PA what is your major practice specialty? *(check only one)*
   ☐ Family Practice
   ☐ General Adult Medicine
   ☐ General Pediatrics
   ☐ Geriatrics
   ☐ OB/GYN/ Women's Health
   ☐ Emergency Medicine
   ☐ General Surgery or Surgical Subspecialty
   ☐ Internal Medicine Subspecialty
   ☐ School
   ☐ Other

4a. **Primary** practice site (i.e., where you perform most of your work as an NP and/or PA):
   Practice Name _____
   Address _____
   _____
   City _____ State ___ Zip _____

b. **Secondary** practice site as an NP and/or PA *(if any)*:
   Practice Name _____
   Address _____
   _____
   City _____ State ___ Zip _____

c. What type of practice sites are these? *(check only one for each site)*

Primary	Secondary	
☐	☐	Community health center
☐	☐	Kaiser clinic
☐	☐	Private practice/group
☐	☐	ER/Urgent care center
☐	☐	School based clinic
☐	☐	Inpatient hospital ward
☐	☐	County health department/Clinic
☐	☐	Nursing home
☐	☐	Home health agency
☐	☐	Hospital outpatient
☐	☐	VA/Other government facility
☐	☐	Other

5. For 1997, what percent of your patients were:
   a. African-American _____
      American Indian _____
      Asian/Pacific Islander _____
      Hispanic/Latino _____
      White _____
      Other _____
      100%
   b. Uninsured? _____ %
   c. Medi-Cal? _____ %
   d. Not fluent in English? _____ %

Demographic Information:

6. Date of birth: ___/___/___ (month / day / year)

7. Sex: Male ☐ Female ☐

8. Race/Ethnicity:
   ☐ African-American
   ☐ American Indian
   ☐ Asian/Pacific Islander
   ☐ Hispanic/Latino
   ☐ White
   ☐ Other

9a. What NP or PA training program did you graduate from?
   School: _____
   _____
   Year of graduation: _____

b. Is this program located in California? ☐ YES ☐ NO

10. If you are an NP, what is the specialty area in which you were **trained**? *(check all that apply)*
   ☐ Family Nurse Practitioner
   ☐ Adult Nurse Practitioner
   ☐ Pediatric Nurse Practitioner
   ☐ Women's Health or OB/GYN NP
   ☐ Geriatric Nurse Practitioner
   ☐ Other Nurse Practitioner (specify) _____
   _____

Thank you for completing this questionnaire. If you have any questions or comments, please contact ***Megan Florida*** *(Office of Statewide Health Planning and Development) at (916) 654-1835.*

1998 Certified Nurse Midwife (CNM) California Statewide Survey

1. Do you currently practice as a CNM *(include academic or administrative positions)*?
   ☐ YES ☐ NO
   (if No, please answer #2 then skip to question #8)

2. If you are NOT practicing as a CNM, why not? *(Please check all the apply.)*
   - ☐ No CNM employment available in my region
   - ☐ No physician backup available
   - ☐ Dissatisfied with demands of profession
   - ☐ Cost of malpractice insurance was too high
   - ☐ No ACNM certification
   - ☐ Unable to obtain hospital priviledges
   - ☐ Other

3. In 1997, how many **hours per week** (on average) did you provide *patient care* as a:
   CNM ☐ hours
   NP ☐ hours Other ☐ hours
   PA ☐ hours

4. When you worked as a CNM how many **hours per week** (on average) were devoted to the following *non-patient care* activities?
   - Management ☐ hours
   - Teaching/Research ☐ hours
   - Other ☐ hours

5a. **Primary** practice site (i.e., where you perform most of your work as a CNM):
   Practice Name _____
   Address _____
   _____
   City _____ State ___ Zip _____

b. **Secondary** practice site as a CNM *(if any)*:
   Practice Name _____
   Address _____
   _____
   City _____ State ___ Zip _____

c. What type of practice sites are these? *(check only one for each site)*

Primary	Secondary	
☐	☐	Community health center
☐	☐	HMO - Kaiser
☐	☐	Hospital (Birth only)
☐	☐	Physician owned private practice
☐	☐	Private nurse-midwifery practice
☐	☐	Freestanding birth center
☐	☐	County hospital/Clinic
☐	☐	Government/Military facility
☐	☐	Other

6. For 1997, what percent of your patients were:
   a. African-American _____
      American Indian _____
      Asian/Pacific Islander _____
      Hispanic/Latino _____
      White _____
      Other _____
      100%
   b. Uninsured? _____ %
   c. Medi-Cal? _____ %
   d. Not fluent in English? _____ %

7. Check all the following patient care services you provide:
   - ☐ Antepartum care
   - ☐ Intrapartum care
   - ☐ Postpartum care
   - ☐ Newborn/Infant care
   - ☐ Well Woman/GYN care
   - ☐ Family Planning care
   - ☐ Other

Demographic Information:

8. Date of birth: ___/___/___ (month / day / year)

9. Sex: Male ☐ Female ☐

10. Race/Ethnicity:
    - ☐ African-American
    - ☐ American Indian
    - ☐ Asian/Pacific Islander
    - ☐ Hispanic/Latino
    - ☐ White
    - ☐ Other

11a. What CNM training program did you graduate from?
    School: _____
    _____
    Year of graduation: _____

b. Is this program located in California? ☐ YES ☐ NO

c. What is your **nurse-midwifery** training? *(check one)*
   - ___ Basic Certificate Program
   - ___ Masters Program
   - ___ Post Masters Certificate Program

12. Did you pursue your RN degree, **only** as a step to CNM certification? ☐ Yes ☐ No

Thank you for completing this questionnaire. If you have any questions or comments, please contact ***Megan Florida*** *(Office of Statewide Health Planning and Development) at (916) 654-1835*